

REMARKS

Claims 1-42 are pending in the present application. Claim 1, 5, 6, 17 and 18 have been amended. No new matter has been added.

The Examiner rejected claims 19 and 35 under 35 U.S.C. § 102(e) as assertedly being anticipated by U.S. Patent No. 7,023,857 (hereinafter “Chiussi”). Applicants respectfully traverse these rejections.

Applicants’ claim 19 recites “a plurality of traffic queues,” wherein “each traffic queue contain[s] . . . a queue scheduler.” Thus, claim 19 explicitly recites that each traffic queue has a queue scheduler, and because there are a plurality of traffic queues, there are a plurality of queue schedulers. Furthermore, Applicants’ claim 19 explicitly recites “a first scheduler coupled to each traffic queue.” Putting these two limitations together, claim 19 requires a plurality of queue schedulers associated with the plurality of traffic queues and a first scheduler coupled to the plurality of traffic queues.

An example of this is illustrated in Applicants’ Figure 4. In this example, a plurality of traffic queues 410, 415, 420, and 425 are illustrated such that each traffic queue has a queue scheduler, such as the FIFO queue scheduler. Coupled to each of the traffic queues 410, 415, 420, and 425 is another scheduler 430.

Chiussi fails to disclose this arrangement. The Office Action asserts that the upstream module 10 discloses the plurality of traffic queues. It is unclear from the Office Action, however, what the Examiner considers the message queues included within each of the plurality of traffic queues or what the Examiner considers the first scheduler coupled to each of the traffic queues.

The Office Action appears to be asserting that the upstream scheduling node 15 discloses both the plurality of queue schedulers and the first scheduler. This, however, is incorrect – it cannot be both. As stated above, claim 19 requires a plurality of queue schedulers (a plurality of traffic queues, each having a queue scheduler) and a first scheduler coupled to each of the traffic queues.

If the upstream scheduling node 15 is the queue scheduler that is included within each of the plurality of traffic queues (*i.e.*, there is a plurality of queue schedulers) of Applicants' claim 19, then there is not a first scheduler that is couple to each of the traffic queues. In this scenario, one would need to assert that the combination of the upstream stage queuing module 10 and the upstream scheduling node 15 is a traffic queue, wherein the sessions 52-58 (see Fig. 2 of Chiussi) disclose the plurality of message queues and the upstream scheduling node 15 is the queue scheduler.

In this scenario, however, there is not a corresponding element to the first scheduler of Applicants' claim 19. Applicants' claim 19 requires that the first scheduler be coupled to each traffic queue. If the traffic queue is the combination of the upstream stage queuing module 10 and the upstream scheduling node 15, then there is no other scheduler coupled to each of the upstream scheduling nodes 15.

In the other scenario, one would need to assert that the upstream scheduling node 15 is the first scheduler and the sessions 52-58 disclose the traffic queues. This scenario also fails in that there is no disclosure that each session 52-58 includes both a plurality of message queues *and a queue scheduler*. Applicants note that Fig. 2 of Chiussi merely illustrates the scheduling node (*e.g.*, the upstream scheduling node 15) of Fig. 1 in greater detail. *See, e.g.*, Chiussi, column 3, lines 48-49.

As explained above, Chiussi fails to disclose at least the limitations “a plurality of traffic queues,” wherein “each traffic queue contain[s] . . . a queue scheduler” and “a first scheduler coupled to each traffic queue.” If this rejection is maintained, Applicants respectfully request that the Examiner provide an explicit explanation of which elements in Chiussi disclose each of the limitations of Applicants’ claim 19, including the traffic queue, message queue, queue scheduler, and a first scheduler such that Applicants may adequately respond.

Regarding claim 35, Chiussi fails to disclose all of the recited elements for similar reasons.

In view of the above remarks, Applicants respectfully request that the rejections of claims 19 and 35 be withdrawn.

The Examiner rejected claims 1, 2, 4-8, 11-14, 16-18, 22-27, 29-34 and 36-39 under 35 U.S.C. § 103(a) as assertedly being unpatentable over Chiussi, in view of U.S. Patent No. 6,987,774 (hereinafter “Minshall”). Applicants traverse these rejections.

Applicants have amended claim 1 to more clearly recite at least one of the distinguishing features of an embodiment, namely, the limitations of “selecting from the multiple message queues within each of the plurality of traffic queues a first message” and “selecting from the first messages of the plurality of traffic queues a selected message based on a priority assigned to each traffic type.” Accordingly, each traffic queue has multiple message queues. First, a first message is selected from each traffic queue, and then a selected message is selected from the first messages from the respective traffic queues. The cited references fail to teach or suggest these limitations.

Applicants further assert that it is improper to combine Chiussi and Minshall as suggested by the Office Action. The Office Action is asserting that it would be obvious to replace the upstream stage queueing modules 10 of Chiussi with the set of queues 103 and the group queue schedulers 205 and 207 of Minshall. This substitution, however, is improper. In Chiussi, the input is placed into one of the upstream stage queueing modules 10. The corresponding function of Minshall is that the input is placed into one of the groups 202, 204, or 206. Accordingly, the queues within a single top upstream stage queueing module 10 of Chiussi corresponds to the queues in one of the groups 202, 204, and 206 of Minshall. For example, the queues in the top upstream stage queueing module 10 of Fig. 1 of Chiussi correspond to the queues 211, 213, and 215 of the group 202 in Fig. 2 of Minshall.

In Minshall, the queues 211-213 are managed by the group queue scheduler 205. The output of the group queue scheduler is a *single output*. If this structure were to replace the upstream stage queueing module 10 of Chiussi, then the upstream scheduling node 15 would be *scheduling a single element*, thereby rendering the need for the upstream scheduling node 15 moot. In other words, the group schedulers 205 and 207 of Minshall perform the same functions as the upstream scheduling nodes 15 of Chiussi.

Furthermore, replacing the elements of Minshall with the upstream scheduling nodes 15 of Chiussi renders the upstream scheduling nodes 15 inoperable as described by Chiussi. “If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” MPEP § 2143.01. As discussed above, the upstream scheduling nodes 15 of Chiussi operate to select one of multiple queues to

output. In the combination asserted by the Office Action, only a single output would be presented to the upstream scheduling nodes 15, thereby preventing the upstream scheduling nodes 15 from performing their stated purpose.

In view of the above remarks, it is clear that the cited references fail to teach or suggest the limitations of claim 1, and accordingly, Applicants respectfully request that the rejection of claim 1 be withdrawn.

Claims 2, 4-8, 11-14, and 16-18 depend from and further limit claim 1, claims 22-27 and 29-34 depend from and further limit claim 19, and claims 36-39 depend from and further limit claim 35. Because claims 1, 19, and 35 are allowable over the cited references as discussed above, Applicants respectfully request that the rejections of claims 2, 4-8, 11-14, 16-18, 22-27, 29-34 and 36-39 be withdrawn as well.

The Examiner rejected claims 20 and 28 under 35 U.S.C. § 103(a) as assertedly being unpatentable over Chiussi, in view of U.S. Patent No. 6,414,963 (hereinafter “Gemar”). Claims 20 and 28 depend from and further limit claim 19, which is allowable over the cited references as discussed above. Accordingly, Applicants respectfully request that the rejections of claims 20 and 28 be withdrawn as well.

The Examiner rejected claims 40-42 under 35 U.S.C. § 103(a) as assertedly being unpatentable over Chiussi, in view of U.S. Patent Publication No. 2004/0047351 (hereinafter “Del Prado Pavon”). Claims 40-42 depend from and further limit claim 35, which is allowable over the cited references as discussed above. Accordingly, Applicants respectfully request that the rejections of claims 40-42 be withdrawn as well.

The Examiner rejected claims 3 and 21 under 35 U.S.C. § 103(a) as assertedly being unpatentable over Chiussi, in view of Minshall, as applied to claim 2 above, and

further in view of Germar. Claims 3 and 21 depend from and further limit claims 1 and 19, respectively, which are allowable over the cited references as discussed above. Accordingly, Applicants respectfully request that the rejections of claims 3 and 21 be withdrawn as well.

The Examiner rejected claims 9 and 10 under 35 U.S.C. § 103(a) as assertedly being unpatentable over Chiussi, in view of Minshall, as applied to claim 1 above, and further in view of U.S. Patent No. 7,116,680 (hereinafter “Kramer”). Claims 9 and 10 depend from and further limit claim 1, which is allowable over the cited references as discussed above. Accordingly, Applicants respectfully request that the rejections of claims 9 and 10 withdrawn as well.

The Examiner rejected claim 15 under 35 U.S.C. § 103(a) as assertedly being unpatentable over Chiussi, in view of Minshall, as applied to claim 12 above, and further in view of U.S. Patent Publication No. 2003/0189897 (hereinafter “Einstein”). Claim 15 depend from and further limit claim 1, which is allowable over the cited references as discussed above. Accordingly, Applicants respectfully request that the rejections of claim 15 be withdrawn as well.

In view of the above, Applicants respectfully submit that this response complies with 37 C.F.R. § 1.116. Applicants further submit that the claims are in condition for allowance. No new matter has been added by this amendment. If the Examiner should have any questions, please contact Applicants' Attorney, Jim Brady, at 972-917-4371. No fee is believed due in connection with this filing. However, in the event that there are any fees due, please charge the same, or credit any overpayment, to Deposit Account No. 20-0668.

Respectfully submitted,

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Date

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